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10/539,529	06/17/2005	Gerhard Heitze	HM-645PCT	2901
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EXAMINER				
ALIE, GHASSEM				
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/539,529

**Applicant(s)**

HEITZE ET AL.

**Examiner**

GHASSEM ALIE

**Art Unit**

3724

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the drive mechanisms (11) in claim 1; the drive mechanisms 11 of the lower rolls installed between the lateral shear frame columns set forth in claim 1, a partial plate in claim 2; partial plates in claim 5; and an electric gear motor and a slide with rollers set forth in claim 9 must be shown or the feature(s) canceled from the claim(s). It should be noted that drive mechanism are not shown. Applicant stated that the drive mechanism are in the gear box 15. However, it is not clear what are the drive mechanisms and how do they drive the rollers 12 and 12'. No new matter should be entered.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "7" and Fig. 1.
3. The drawings are objected to because "Roller", "Pinion", and "Rack" in the amended Fig. 7 do not have a reference numbers. It should be noted that reference numbers should be assigned to the claimed parts shown in the drawings.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the

remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Response to Amendment***

4. The substitute specification which is submitted as a marked-up copy does not include all the parts or elements in the original specification. It should be noted that the marked-up copy of the specification should include all the parts of the original specification. For example, the first two lines in the first page of the specification and the last two pages of the original specification are not included in the marked-up copy of the substitute specification. Therefore, the amendment to the specification is incomplete and cannot be entered.

5. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to

timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

### ***Specification***

6. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter. The specification is a translation of another language to English.

In addition, the invention has not been clearly described in detail. For example, each figure in the drawings has been briefly described in the specification. However, the specification has not described the invention with the help of the drawings. The specification briefly mentions the reference numbers assigned to the parts of the invention without at least a brief explanation as to what is the function of the parts and how they are related. In fact, some of the reference numbers, such as drive shaft 19, merely have been listed under the "List of reference Numbers." In addition, the specification does not at least briefly describe how the shear apparatus is operated. Therefore, it is almost impossible to read the detail description of the drawings and understand the essential parts of the instant invention. It is not clear how the parts are assembled and relate to one another? It is also not clear how does the instant invention work?

### ***Claim Objections***

7. Claim 1 is objected to because of the following informalities: in claim 1, line 4, "eccentric drives (8)" should be --eccentric drives (8, 8')--. In claim 1, lines 4-5; " , and with a lower blade (4)" should be --; and a lower blade (4)--.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. It should be noted that the claims are not clear. It is not clear what encompasses the shear apparatus. The claims should be rewritten.

10. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 1, “the shear” lacks antecedent basis. See line 11 in claim 1. Claim 1 recites, “the shear is arranged between lateral shear frame columns.” However, the invention in claim 1 is about the shear for cutting heavy steel plate. Therefore, it is not clear whether the claim is directed to a shear apparatus having shear columns or is directed to a combination of a shear apparatus and the shear columns. It is not also clear whether the driver which is assigned to the shear is part of the shear as an apparatus or is a separate member for the claimed shear apparatus. It is not clear what encompasses “Shear” as an apparatus. It is not clear what elements of the claimed invention are part of the shear as an apparatus. Regarding claim 1, “bearings (10, 10’) and drive mechanisms (11) of the lower driver rolls (12, 12’) are installed between the lateral shear frame columns (6, 6’)” is not

accurate. In fact, amended Fig. 5 shows that the drive mechanisms 11 are inside the gear box 15 which is located outside of the lateral columns 6, 6'. Regarding claim 1, "the lower driver roller" lacks antecedent basis. See claim 1, line 17.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-9, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (3,958,480), hereinafter Rohde, in view of Kumade (4,054,076). Regarding claim 1, Rohde teaches a shear 5 for cutting heavy steel to length including an upper blade 16 which carries out a rolling cutting movement by drive means 11, 12 and it is held in a blade holder 15. Rohde also teaches a lower blade 10 which is mounted in a stationary way in the shear frame. Rohde also teaches that the upper blade holder 15 is movably connected by an articulate guide element to a shear column 8. It should be noted that the articulate member, as a roller, connects the upper blade holder 15 to shear column 8. Rohde also teaches a driver 4 for the timed advance of predeterminable lengths of the steel plate. Rohde also teaches that the shear is arranged between two lateral shear frame columns 8 of the shear frame with a closed construction with one upper cross-frame and one lower cross-frame. See Figs. 4-5 in Rohde. Rohde also teaches that the drive 11, 12 and the upper blade 16 are installed in the upper region of the shear frame and in the lower region of the

shear frame bearings 32 and drive mechanisms 38, 40 of the lower drive rollers 18, 16, 28 are installed between the lateral shear frame columns. It should be noted that the drive mechanisms and the bearings of the lower drive rollers are within the two ends of the lateral columns. See Figs. 4-5. It should be noted that the lower drive rollers are located within the two ends of the columns 8. Therefore, the drive mechanisms and the bearings of the lower rollers are located within the lateral columns. Rohde also teaches that the lower blade table 9 is rigidly mounted between the columns 8. Rohde also teaches that a lower gearbox that is naturally connected to the motors 38, 40 for driving the shafts of the drive rollers 18, 26, 28. Rohde also teaches a central bearing 22 in addition to the bearings 32 of the lower driver rolls 26, 28. It should be noted that the lower drive rollers 26, 28 have two bearings 32. See Figs. 1-5 and col. 5, lines 2-61 in Rohde.

Rohde does not explicitly teach that the drive of the upper blade is an eccentric drive. However, the use of eccentric drive for driving an upper shear blade, and an articulate member connecting the shear blade holder to a column in the shear apparatus is well known in the art such as taught by Kumade. Kumade teaches an eccentric drive 9, 10 for an upper blade 18 of a shear apparatus. Kumade also teaches an articulated guide element 22 for connecting the blade holder 17 of the upper blade 18 to a shear column 2. See Figs. 3-4 and col. 1, lines 39-54 in Kumade. It would have been obvious to a person of ordinary skill in the art to provide Rohde's shear with an alternative drive mechanism having an eccentric drive and an articulated guide element that connects the blade holder to the shear column, as taught by Kumade, in order to prevent the upper blade slipping relative to the sheet plate to be cut. In addition, the eccentric drive mechanism in Kumade and the drive mechanism in Rohde are



art-recognized equivalents that function the same, and it would have been obvious to a person of ordinary skill in the art to substitute one for another.

Regarding claim 2, as best understood, Rohde teaches everything noted above including one drive with an upper drive contact roll 17 is present before the upper blade 16 and one drive with an upper driver contact roll 25, 27 is present after the upper blade 16. See Fig. 4 in Rohde.

Regarding claims 3-9, as best understood, Rohde teaches everything noted above including a driver contact roll 17, run-in driver 18, rear driver 26, 28, lever system and hydraulic cylinder 24, 34, 36, a driven lower driving roll 26, 28, a support bracket, and a bottom faceplate, a slide 24, 34, 36.

13. Claims 1-9, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rohde et al. (3,958,480), hereinafter Rohde, in view of Kumade (4,054,076) or in further view of Kopf et al. (3,777,608), hereinafter Kopf. Regarding claim 1, Rohde teaches a shear 5 for cutting heavy steel to length including an upper blade 16 which carries out a rolling cutting movement by drive means 11, 12 and it is held in a blade holder 15. Rohde also teaches a lower blade 10 which is mounted in a stationary way in the shear frame. Rohde also teaches that the upper blade holder 15 is movably connected by an articulate guide element to a shear column 8. It should be noted that the articulate member, as a roller, connects the upper blade holder 15 to shear column 8. Rohde also teaches a driver 4 for the timed advance of predeterminable lengths of the steel plate. Rohde also teaches that the shear is arranged between two lateral shear frame columns 8 of the shear frame with a closed construction with one upper cross-frame and one lower cross-frame. See Figs. 4-5 in

Rohde. Rohde also teaches that the drive 11, 12 and the upper blade 16 are installed in the upper region of the shear frame and in the lower region of the shear frame bearings 32 and drive mechanisms 38, 40 of the lower drive rollers 18, 16, 28 are installed to the lateral shear frame columns. Rohde also teaches that the lower blade table 9 is rigidly mounted between the columns 8. Rohde also teaches that a lower gearbox that is naturally connected to the motors 38, 40 for driving the shafts of the drive rollers 18, 26, 28. Rohde also teaches a central bearing 22 in addition to the bearings 32 of the lower driver rolls 26, 28. It should be noted that the lower drive rollers 26, 28 have two bearings 32. See Figs. 1-5 and col. 5, lines 2-61 in Rohde.

Rohde does not explicitly teach that the drive of the upper blade is an eccentric drive. However, the use of eccentric drive for driving an upper shear blade, and an articulate member connecting the shear blade holder to a column in the shear apparatus is well known in the art such as taught by Kumade. Kumade teaches an eccentric drive 9, 10 for an upper blade 18 of a shear apparatus. Kumade also teaches an articulated guide element 22 for connecting the blade holder 17 of the upper blade 18 to a shear column 2. See Figs. 3-4 and col. 1, lines 39-54 in Kumade. It would have been obvious to a person of ordinary skill in the art to provide Rohde's shear with an alternative drive mechanism having an eccentric drive and an articulated guide element that connects the blade holder to the shear column, as taught by Kumade, in order to prevent the upper blade slipping relative to the sheet plate to be cut. In addition, the eccentric drive mechanism in Kumade and the drive mechanism in Rohde are art-recognized equivalents that function the same, and it would have been obvious to a person of ordinary skill in the art to substitute one for another.

Rohde as modified above teaches everything noted above except that the drive mechanisms 38, 40 of the lower drive rollers 18, 16, 28 are installed between the lateral shear frame columns. However, the use of drive mechanisms and bearings of rollers installed between lateral columns in a shear apparatus is well known in the art such as taught in Kopf. It should be noted that Kopf teaches that the drive mechanism and inherently the bearing of the lower roller is located between lateral shear columns. See Fig. 3 in Kopf. It would have been obvious to a person of ordinary skill in the art to move the driving mechanism and the bearings of the lower drive rollers in Rohde's shear apparatus, as modified above, between the lateral shear columns, as taught by Kopf, since the lower drive rollers function the same whether the drive mechanisms of the lower drive rollers are located between the lateral columns or outside the lateral columns.

Regarding claim 2, as best understood, Rohde teaches everything noted above including one drive with an upper drive contact roll 17 is present before the upper blade 16 and one drive with an upper driver contact roll 25, 27 is present after the upper blade 16. See Fig. 4 in Rohde.

Regarding claims 3-9, as best understood, Rohde teaches everything noted above including a driver contact roll 17, run-in driver 18, rear driver 26, 28, lever system and hydraulic cylinder 24, 34, 36, a driven lower driving roll 26, 28, a support bracket, and a bottom faceplate, a slide 24, 34, 36.

***Response to Amendment***

14. Applicant's argument that the combination of references does not teach a construction in which the bearings and the lower driver rolls are arranged between the lateral columns of

the shear frame is not persuasive. In fact, the drive mechanisms and the bearings of the lower drive rollers are within the two ends of the lateral columns. See Figs. 4-5. It should be noted that the lower drive rollers are located within the two ends of the columns 8. Therefore, the drive mechanisms and the bearings of the lower rollers are located within the lateral columns.

***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA/ga

April 15, 2008

/Ghassem Alie/

Primary Examiner, Art Unit 3724